(19) World Intellectual Property **Organization** International Bureau



(43) International Publication Date 14 October 2004 (14.10.2004)

PCT

(10) International Publication Number WO 2004/088649 A3

(51) International Patent Classification7: C09B 45/20, 45/22, 56/00

G11B 7/247,

(21) International Application Number:

PCT/EP2004/050206

(22) International Filing Date: 25 February 2004 (25.02.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: EP 03100908.7 4 April 2003 (04.04.2003) 2 September 2003 (02.09.2003) 03102687.5

(71) Applicant (for all designated States except US): CIBA SPECIALTY CHEMICALS HOLDING INC. [CH/CH]; Klybeckstrasse 141, CH-4057 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): ADAM, Jean-Marie [FR/FR]; 60 D, rue de Village-Neuf, F-68128 Rosenau (FR). AESCHLIMANN, Peter [CH/CH]; Sandweg 16, CH-4123 Allschwil (CH). BACHER, Jean-Pierre BUDRY, Jean-Luc [CH/CH]; 52, rue des Oeuches, CH-2842 Rossemaison (CH). LEHMANN, Urs [CH/CH]; Unterer Rheinweg 50, CH-4057 Basel (CH). MORTON, Colin [GB/CH]; Breisacherstrasse 30, CH-4057 Basel (CH). SCHMIDHALTER, Beat [CH/CH]; Dahlienstrasse 25, CH-4416 Bubendorf (CH). SPAHNI, Heinz [CH/CH]; Eggstrasse 23, CH-4402 Frenkendorf (CH).

(74) Common Representative: CIBA SPECIALTY CHEM-ICALS HOLDING INC.; Patent Department, Klybeckstrasse 141, CH-4057 Basel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every

 $Q_7=Q_8$, Q_5 is CR_5 or N, Q_6 is CR_6 or N, Q_7 is CR_7 or N, Q_8 is CR_8 or N, and Q_9 is O, S, NR_{10} or $Q_6=Q_8$; M^r , A^{mr} , Z^{nr} , R_2 , R_9 are as defined in the claims.

WO 2004/088649 A3

I COLOR CONTENTA DE DESCRIBERO DE CONTENTA DE CONTENTA DE CONTENTA DE CONTENTA DE CONTENTA DE CONTENTA DE CONT

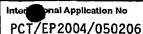
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report:
 18 November 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



CLASSIFICATION OF SUBJECT MATTER PC 7 G11B7/247 C09B45/20 C09B45/22 C09B56/00 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) G11B C09B IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, PAJ, IBM-TDB, COMPENDEX, CHEM ABS Data, BEILSTEIN Data, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category ° 1-9 PATENT ABSTRACTS OF JAPAN X vol. 2000, no. 10, 17 November 2000 (2000-11-17) & JP 2000 198273 A (TDK CORP), 18 July 2000 (2000-07-18) cited in the application *tables on pages 5 and 12* abstract PATENT ABSTRACTS OF JAPAN 1 - 10X vol. 1999, no. 08 30 June 1999 (1999-06-30) & JP 11 058977 A (TDK CORP), 2 March 1999 (1999-03-02) *tables starting on pages 5, 10 and 13* abstract -/--Patent family members are listed in annex. Further documents are listed in the continuation of box C. X Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the *A* document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-ments, such combination being obvious to a person skilled in the art. "O" document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 30. 09. 2004 6 July 2004 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Härtinger, S

Intermental Application No PCT/EP2004/050206

		Relevant to claim No.		
	tion) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages			
Category °	Citation of document, with indication, within appropriate, or the relevant personnel.			
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 02, 5 February 2003 (2003-02-05) & JP 2002 293031 A (RICOH CO LTD; HODOGAYA CHEM CO LTD), 9 October 2002 (2002-10-09) cited in the application *compound no. 1, 3-5, 8-16* abstract	1-9		
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 07, 29 September 2000 (2000-09-29) & JP 2000 118145 A (TDK CORP), 25 April 2000 (2000-04-25) *tables starting on pages 6, 10 and 14* abstract	1-10		
X	US 5 851 621 A (SCHMIDHALTER BEAT ET AL) 22 December 1998 (1998-12-22) cited in the application column 5, line 62 - column 6, line 40; claim 6	1-9		
X	US 6 242 067 B1 (KAMBE EMIKO ET AL) 5 June 2001 (2001-06-05) cited in the application column 7, line 20 - column 10, line 50; claims; example 2; tables 1,2	1-9		
X	US 6 168 843 B1 (KAMBE EMIKO ET AL) 2 January 2001 (2001-01-02) cited in the application *compound no. 2, 19, 22, 24, C-6, C-7, D-21, D-22* column 3, line 29 - line 53; claims 1,12-15	1-9		
A	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 05, 30 April 1998 (1998-04-30) & JP 10 006651 A (RICOH CO LTD), 13 January 1998 (1998-01-13) abstract	1-9		
P,X	WO 03/098617 A (SCHMIDHALTER BEAT; LEHMANN URS (CH); BUDRY JEAN-LUC (CH); MORTON COLI) 27 November 2003 (2003-11-27) cited in the application page 29 - page 31; claims 1,4 page 27; example 74 page 66 - page 68	1-9		
	-/			

Interplonal Application No PCT/EP2004/050206

	PC1/EP2004/050206							
C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No.								
Category °	Citation of document, with indication, where appropriate, of the relevant passages		neisvani io ciaim No.					
P,X	WO 03/098618 A (AESCHLIMANN PETER; SCHMIDHALTER BEAT (CH); LEHMANN URS (CH); BUDRY JE) 27 November 2003 (2003-11-27) cited in the application page 31 - page 32; claims 1,4; example 48 page 59 - page 61	·	1-9					
x .	EP 0 483 387 A (MITSUBISHI CHEM IND) 6 May 1992 (1992-05-06) claim 5; examples 5-7,15,16; table 3		1–10					
		÷						
!								

rnational application No. PCT/EP2004/050206

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This international Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This international Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
As all required additional search fees were timely paid by the applicant, this international Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-9 (part)
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9(part)

formula (I)

2. claims: 1-10(part)

formula (II)

3. claims: 1-10(part)

formula (III)

information on patent family members

Intermal Application No PCT/EP2004/050206

	tent document in search report		Publication date		Patent family member(s)	Publication date
JP	2000198273	A	18-07-2000	NONE		
JP	11058977	Α	02-03-1999	NONE		
JP	2002293031	A	09-10-2002	NONE		
JP	2000118145	A	25-04-2000	NONE		
US	5851621	A	22-12-1998	CA DE EP JP	2204209 A 59710824 D 0805441 A 10097732 A	1 13-11-2003
US	6242067	B1	05-06-2001	JP JP	3441410 B 2000190642 A	2 02-09-2003 11-07-2000
US	6168843	B1	02-01-2001	CA DE EP WO JP	2247338 A 69728971 D 0887202 A 9829257 A 3364231 B	1 09-06-2004 1 30-12-1998 1 09-07-1998
JP	10006651	A	13-01-1998	JP	3412078 B	2 03-06-2003
WO	03098617	A	27-11-2003	WO	03098617 A	2 27-11-2003
WO	03098618	A	27-11-2003	MO	03098618 A	1 27-11-2003
EP	0483387	A	06-05-1992	DE DE EP HK US CA WO JP KR US	69112337 D 69112337 T 0483387 A 1000162 A 5330542 A 2063579 A 9118950 A 7051682 E 160944 E 5389419 A	12 02-05-1996 11 06-05-1992 11 09-01-1998 12-07-1994 11 26-11-1991 11 12-12-1991 12 05-06-1995 13 15-12-1998